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ABSTRACT

A school system's testing program can be used as a tool in curriculum development and instructional improvement if the tests match the goals and objectives of the instructional program and what is taught in the classroom. Test-taking skills should be taught so that the test will accurately reflect certain knowledge. Test results should be an indicator of strengths and weaknesses in curriculum and teaching performance. Teachers can make instructional decisions with norm-referenced test data by comparing the current level of achievement and academic potential, observing test-taking ability, and comparing classroom performance to test scores. Wide stanine differentials between criterion-referenced test results in reading, math, and spelling can indicate an area of emphasis for a student's instructional program. Learning must be viewed as a comprehensive changing process which requires changes in curriculum and instruction. (HFG)

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Using Your Testing Program in Curriculum Development and Instructional Improvement

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To test or not to test is no longer the question faced by school systems; however several important questions remain and deserve careful consideration. How much to test, what kind of tests to use and what to do with the information are all important concerns. It is the latter which will be examined here. Tests are given in order to assess the effectiveness of the curriculum and instruction in a school system. It follows then that the testing program can have an important role in curriculum development and instructional improvement. Reviewing the following ten items can be helpful in determining whether a school system's testing program is used effectively in this role. A basic and critical assumption underlies this entire discussion. Testing is not an end in itself but a tool to be used by those concerned about the quality of the curriculum and instruction in their district. In essence this means that the purpose of testing is to help educators help students learn.

The first two items demonstrate ways in which test results are not serving the role of helping with curriculum development or instructional improvement.

Item 1. Student scores are put on cumulative folders and nothing is done with them by teachers or administrators or people think that is true.

Sometimes these are hauled out to justify application for external funding of some kind and that may eventually result in improved curriculum and instruction. However, that return may not justify the expense in student learning time consumed or in money invested. Also damaging is the

notion that often people and especially teachers think that nothing constructive is done with the results. This causes them to question the judgement of administrators responsible for the wasteful expenditure of resources and to suspect a lack of knowledge to use testing information purposefully.

2. Scores are reported to the public primarily as percentages of students scoring above or below national norms

The other thing that often gets done and in many ways is more costly than leaving them in the folders is reporting them to the media. Education has earned itself a lot of bad press this way. Burn out and morale have become problems. All this be cannot blamed on reporting scores, but it creates frustration when educators know they are working hard and all they seem to get for it is low pay and bad publicity. There are other important reasons for not doing this which will be considered in relation to other issues and in terms of what to do, not just what not to do.

The remaining eight issues will be considered as ways in which testing program can serve in the role of aiding in curriculum development and instructional improvement.

Item 3. The goals and objectives of the instructional program have been matched to what the test(s) claim to measure.

As one would expect it has been found that students do better on tests that match the curriculum content (Walker and Schaffarzick, 1974). There are several implications of this finding. First, the school system's goals and objectives must be clearly defined and stated and be the product of the

administration, the faculty and the community. Secondly, someone must be assigned the responsibility of performing the tasks of:

(a) examining the test manual to clarify what the test supposedly measures and evaluating the evidence given that those things are actually measured.

(b) comparing the school system's goals and objectives to what the test measures and how it measures those objectives. One aspect to consider is consistency between approach of the test and the curriculum. An example is not using a traditional test to measure innovative curriculum. Sometimes an outside opinion on the ability of the test to assess what it claims is helpful. At least one source available to the person responsible for considering this issue is Buros 8th Yearbook of Mental Measurements. It is a series of test critiques prepared by authorities qualified to evaluate tests. A second source is publications of the professional organizations. For example, in the field of reading one could consult Diagnostic and Criterion Referenced Reading Tests: Review and Evaluation or Reading Tests and Teachers.

Item 4. The goals and objectives of the school system and what the tests measure are what is taught in the classroom.

Consider the objectives found on the criterion referenced test being used or developed in many states. The CRTs will be used to determine how well students are achieving these objectives. Some questions need to be answered by school systems who want to get the most use from the CRT results.

Who teaches which objectives? How much time is spent teaching the objectives? Is sufficient practice being provided in the materials available to teachers? How do you find out if what is being tested is being taught. To provide a systematic means of answering these questions a chart can be compiled of all available information. The one below is one approach to organizing the information and pinpointing gaps or need areas.

Matching Goals and Objectives to Classroom Instruction

Goal/Objective	K	1	2	3	4	5	6	7	8	9	10	11	12
1. divide two common fractions					I/P	R/P	M/P						
2. reading to enjoy and appreciate literature	I	D	D	D	D	D	D	D	D	D	D	D	D

KEY

I - introduce
R - reteach
M - master
D - develop at more advanced level
P - practice provided in materials

Item 5. Students possess test taking skills which make the results meaningful or valid.

The goal of testing is to learn if students have certain knowledge rather than if they know how to take tests. The format in some standardized tests for assessing spelling illustrates this point. Students pick the word that is spelled correctly from four choices. Is this typical spelling test behavior? The results may only indicate that some students do not possess the test taking skill necessary to indicate their spelling skills. Therefore, teach test taking skills. Teachers should develop exercises like the test format for learning during the year. This practice should be emphasized two weeks before testing. Doing this is not teaching the test. It is teaching format and should yield more accurate test results. Why use the results if they are not valid?

Item 6. Test results are used appropriately in making decisions about school programs.

According to Aulls (1982) there are four questions administrators should answer in making appropriate administrative use of scores.

a. How does the average student at a given grade level compare to national or local norm scores?
b. How does the average student at a primary, intermediate, or secondary level at a given school compare to national or local test norms?
c. What changes have occurred in the mean global performance based on a comparison of pre and post instruction at each grade level?
d. What are the differences between the expected and obtained scores in various curriculum areas?

Answering these questions can lead to policy and decision making in the areas of curriculum and instruction. Is curriculum revision perhaps updating indicated? Can instruction be improved through teacher in-service in areas of low student performnce? Administrative initiative in curriculum and instruction represent constructive utilization of testing results.

Item 7. Teachers know what to do and not to do with scores.

Placing students in instructional materials according to standardized tests scores is not an advisable practice. Standardized test scores are associated with frustration level performance. Appropriate placement will be in easier materials at the instructional level.

The kind of decisions which can be made about individual students based on scores depends on whether criterion referenced or norm referenced tests were administered. Baumann and Stevenson (1982) suggest teachers can make instructional decisions with norm referenced test data by comparing the current level of achievement and academic potential, observing test taking ability and comparing classroom performance to test scores. Organizing information on a chart like the one below by Baumann and Stevenson allows the teacher to reach an instructional decision.

Using Standardized Test Data

	*Test Score (Rdg.)	*Aptitude Score	Testing Ability	Classroom Performance	Instructional Decisions
Susan	53	55	Satisfactory	a. grade level materials b. acceptable progress	maintain
Tom	40	55	Problems evident	a. grade level material b. progress	further testing needed

*Stanines or percentile scores--directly comparable across tests.

Aulls (1982) adds another acceptable instructional use for achievement scores. He suggests comparing performance on reading to math to spelling, etc. A wide difference of two or more stanines between subjects indicates an area of emphasis for a student's instructional program.

Teachers in agreement with the following eleven statements can effectively use criterion referenced test results.

a. I base my teaching on long term and daily instructional objectives.

b. I want to know what knowledge the class has or does not have about the content I teach.

c. I want to know what know what knowledge I should either directly teach, reinforce or not teach the class.

d. I want to know what knowledge each student has or does not have about the content I teach.

e. I want to know what knowledge I should either directly teach, reinforce or not teach individual students.

f. I want to know to wht extent the instructional objectives I stressed were satisfactorily learned by the average student or by a particular group of students or by individual students.

g. I want to know the strengths and weaknesses of the instructional program at a particular grade level or segment of the program.

h. I want to know how to best organize students to optimize the amount of instructional time devoted to my goals and objectives.

i. I want to know that students receiving instruction based on my objectives perform <u>significantly better</u> than students who have not received the instruction.

j. I want to know which students need further assessment in order for me to plan appropriate instruction.

k. I want to know which students are ready for more advanced learning opportunities.

Item 8. Test results are reported as a gauge of how well the goals and objectives are being achieved.

This necessitates objectives being clarified, clearly stated and made known to the community which in turn help them to be achieved. This is a preferable alternative to reporting how many students are above or below the national norm unless the school system's goals are stated in relation to national norm. A reasonable practice is reporting the percent of students achieving the stated goals/objectives and plans for improving instruction or revising the curriculum to facilitate greater success if the level of achievement of any goal or objectives is unacceptable.

Item 9. Formative evaluation is emphasized as much as summative evaluation.

Based on formative evaluation, the instructional program is adjusted by teacher throughout the year to meet the changing needs of students. Based on summative evaluation programs are changed to better achieve the school system's states goals and objectives.

Item 10. Learning is viewed as more than knowing a list of skills and measurement includes assessment and utilization of information and attitudes, interests, progress and self-concept.

Students are not computers to be programmed to feedback lists of right answers, series of unrelated ideas, or the scope and sequence of skills from

a set of materials. The risk of doing so is producing readers who do not like to read, passive learners who do not think, and data consumers who do not enjoy, appreciate or evaluate. For example, have a school system's goals been met if students have achieved the criterion rferenced test objectives or scored above the national norm but never check out library books or read newspapers? Additionally, do criterion or norm referenced tests assess all the school system's objectives? If not, are they being assessed and results reported? Do students' attitudes and interests influence the curriculum and instruction?

The results of testing programs consisting of tests matched to goals and objectives have the potential to supply valuable information for the tasks of curriculum development and instructional improvement. Long term, systematic, cooperative planning of the testing program and its uses by administration and faculty can significantly improve the quality and quantity of learning within a school system. Test results can help educators help students learn.

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